



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/714,608	11/18/2003	Ichiro Terunuma	Q78513	4169
7590	03/30/2005		EXAMINER	
Sughrue Mion, PLLC 2100 Pennsylvania Avenue, N.W. Washington, DC 20037-3213			LE, THANH TAM T	
			ART UNIT	PAPER NUMBER
			2839	

DATE MAILED: 03/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/714,608	TERUNUMA ET AL.
	Examiner Thanh-Tam T. Le	Art Unit 2839

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 16 February 2005.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 7-17 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 7-17 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 07 October 2004 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date 11/18/03.

4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 7-17 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 3-4, 7, 10, 12, 15, 17 and 20-21 of U.S. Patent No. 6, 707,689 and over claims 1-14 of U.S. Patent No. 6,736,648. Although the conflicting claims are not identical, they are not patentably distinct from each other because a junction box main body, a connector portion and a cable portion which is constituted of a flexible printed circuit board.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maue et al. (5,995,380) in view of Seki (5,908,322).

Regarding claims 7, 12-13 and 17, Maue et al., figures 2-4, disclose

- a junction box main body (41) to which an electric component (17) to be connected is attached;
- a connector portion (43) which connects a connector of an outer wiring circuit (15) and is formed separately from the junction box main body; and
- a cable portion which is constituted of a flexible printed circuit (column 4, lines 7-25) with a circuit portion (65) including a conductor pattern formed on an insulating film (63), and electrically connects the junction box main body to the connector portion,

wherein the flexible printed circuit including a strip portion (the thickness of the flexible printed circuit board) for linking the junction box main body and the connector portion (figure 3) and a terminal portion (103 and 117) extending transversally from a lateral edge of the strip portion at positions to be fitted to the junction box main body and the connector portion,

wherein the junction box main body including a junction box housing provided with a part fitting port for fitting the electric component, and

wherein the connector portion (43) including a connector housing for receiving the connector of the outer wiring and a second connecting terminal (117) to be connected to the terminal connecting portion (103) of the flexible printed circuit board and contained in the connector housing so as to be connected to the connector of the outer of the outer wiring circuit.

Maue et al. disclose the instant claimed invention as described above except for the junction box main body including a plate-shaped first connecting terminal to be contained in the junction box housing and the strip portion is bent in a transversal direction along a longitudinal direction.

Seki, figure 9, discloses a bus bar (9) mounted into a housing (7) having a connecting pin (10) is formed at a distal end of each branch (9b), the connecting pin (10) reads on a plate-shaped first connecting terminal to be contained in the junction box housing. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide Maue et al. to have structure of the bus bar with the terminal, as taught by Seki for better connection.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the strip portion is bent in a transversal direction along a longitudinal direction, since it has been held that the provision of adjustability, where needed, involves only routine skill in the art. In re Stevens, 101 USPQ 284 (CCPA 1954) for easy connection (this case law is also applied to claims 12 and 13).

Regarding claim 8, Maue et al. disclose connected to the terminal connecting section by resistance welding.

Regarding claim 9, Maue et al. disclose a plurality of terminal connecting portions are formed on the flexible printed circuit board and extended from the lateral edges of the strip portion.

Regarding claim 10, Maue et al., figure 4, disclose the plurality of flexible printed circuits of the cable portion are superimposed upon one another in a non-bonded state so that the terminal connecting portions of the respective flexible printed circuits are arranged in positions with the first connecting terminal of the junction box main body and the second connecting terminal of the connector portion arranged therein.

Regarding claim 11, Maue et al. disclose the connecting portion of the first and second connecting terminals and the terminal connecting portion is sealed by a molded piece of resin.

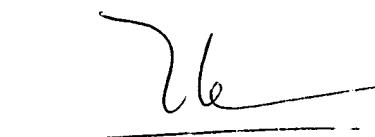
Regarding claims 14 and 15, it is noted that Seki, figure 13, discloses the junction box housing (12) is provided with a lance mechanism (16) for rigidly securing the first connecting terminal to the inside.

Regarding claim 16, Maue et al., figure 2, disclose the connector portion is removably fitted to the connector housing, and the connector portion further comprising a case portion (43) for containing at least a part of the flexible printed circuit in the inside.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh-Tam T. Le whose telephone number is 571-272-2094. The examiner can normally be reached on 7:30-5:00.
6. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, TC Patel can be reached on 571-272-2098. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.
7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TL.
03/28/05.



T. Le